

Fact Sheet



For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-08300101-2007**
Application Received: **December 6, 2001**
Plant Identification Number: **03-54-083-00101**
Permittee: **Eastern American Energy Corporation**
Facility Name: **Ellamore Compressor Station**
Mailing Address: **P. O. Box 459, Buckhannon, WV 26201**

Physical Location:	Ellamore, Randolph County, West Virginia
UTM Coordinates:	536.40 km Easting • 4306.30 km Northing • Zone 17
Directions:	Proceed East from the town of Ellamore on US Route 33 for approximately 3 miles to the station which is on the left side of the road and visible.

Facility Description

The Ellamore Station is a natural gas transmission facility covered by NAICS 48210 and SIC 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of one (1) 600-hp and one (1) 800-hp natural gas fired reciprocating engines, one (1) 120-hp emergency generator, one (1) heating system boiler, one (1) dehydrator reboiler, one (1) glycol regenerator, one (1) glycol absorber, one (1) liquids knockout system and three(3) 1,000 gallon storage tanks.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Criteria Pollutants	Potential Emissions	2005 Actual Emissions
Carbon Monoxide (CO)	165.10	52.49
Nitrogen Oxides (NO _x)	142.39	57.69
Particulate Matter (PM ₁₀)	1.33	0.51
Total Particulate Matter (TSP)	1.33	0.51
Sulfur Dioxide (SO ₂)	0.05	0.03
Volatile Organic Compounds (VOC)	5.20	3.31
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2005 Actual Emissions
Total HAPS	2.85	1.0
<i>Some of the above HAPs may be counted as PM or VOCs.</i>		

Title V Program Applicability Basis

This facility has the potential to emit 165.10 tons per year of Carbon Monoxide (CO) and 142.39 tons per year on Nitrogen Oxides (NO_x). Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Eastern American Energy Corporation (EAEC) is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	New Source Review permits for stationary sources
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
State Only:	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR15, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R30-08300101-1996	June 23, 1997	R13-2347
R13-2347	October 29, 1999	
Installation of 0.4 MMBtu/hr flare on an existing dehydrator		

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

The only change to the June 23, 1997 Title V Permit was one NSR permit. The permittee installed 0.4 MMBtu/hr flare on an existing dehydrator. The incoming gas is dehydrated to comply with gas quality specifications. This dehydration is achieved in a triethylene glycol (TEG) dehydration system consisting of a contractor bed, a reboiler, and associated equipment. Wet gas enters the contractor where moisture and a small portion of the hydrocarbons on the gas stream are absorbed into the glycol. The glycol, which has become "rich" with absorbed moisture and hydrocarbons, is regenerated by heating. The separated moisture and vapor are currently vented to the atmosphere. The flare will be used to combust these hydrocarbons, thereby reducing VOC emissions and odors.

A determination was made that 45CSR10 does not apply to engines and compressors. Since the reboiler and boiler are less than 10 MMBtu/hr, they are exempt from sulfur dioxide weight emission standards for fuel burning units, registration, permits, testing, monitoring, and recordkeeping, 45CSR§§10-3, 6 through 8.

The 0.775 MMBtu/hr dehydrator reboiler and the 0.216 MMBtu/hr heating system boiler are exempt from monitoring under 45CSR2 and 45CSR2A since their heat input are less than 10 MMBtu/hr.

Flare – FLLP1

The Ellamore's flare has a rating of 0.4 MMBtu/hr that was installed in 1999. 45CSR6 includes flares in the definition of incinerators and sets the following limits:

45CSR6 - To Prevent and Control Air Pollution from Combustion of Refuse

The allowable particulate matter limit for the flare is calculated to be 0.11 LB/hr (45CSR§6-4.1.).

The particulate matter emission limit from each flare is determined by the following formula (45CSR§6-4.1):

$$\text{PM Emissions (LB/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where: $F = 5.43$

$$\text{Incinerator Capacity} = 39 \text{ Lb/hr} \times 1 \text{ ton/2000 lb} = 0.0195 \text{ tons/hr}$$

$$\text{PM Emissions (LB/hr)} = 5.43 \times 0.0195 \text{ tons/hr} = 0.11 \text{ LB/hr}$$

The visible emission limit for the flare is 20% opacity (45CSR§6-4.3.) with the exception to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up (45CSR§6-4.4.).

This rule also prohibits from the flares, the emission of particles of unburned or partially burned refuse or ash that are large enough to be individually distinguished in the open air (45CSR§6-4.5.). The rule requires the flares, including all associated equipment and grounds, be designed, operated and maintained so as to prevent the emission of objectionable odors (45CSR§6-4.6.).

Compliance will be demonstrated through monthly visible emission checks and record keeping.

Federally and Practically Enforceable requirements for the flare have been added the Title V Permit, Sections 5.1.8 through 5.1.10, 5.2, 5.3, 5.4, and 5.5.2 through 5.5.4.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

45CSR21	Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds. Ellamore station is not located in Cabell, Kanawha, Putnam, Wayne, or Wood counties that are affected by 45CSR21.
45CSR27	To Prevent and Control the Emissions of Toxic Air Pollutants. Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment "used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight."
40 C.F.R. 60 Subpart GG	Standards of Performance for Stationary Gas Turbines. There are no turbines at the Ellamore Compressor Station.
40 C.F.R. 60 Subpart K	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978. All tanks are below 40,000 gallons in capacity.
40 C.F.R. 60 Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984. All tanks are below 40,000 gallons in capacity.
40 C.F.R. 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. All tanks storing volatile organic liquids are below 75 m ³ in capacity.

40 C.F.R. 60 Subpart KKK	Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Ellamore station is not engaged in the extraction of natural gas from field gas or in the fractionation of mixed natural gas liquids to natural gas products.
40 C.F.R. 60 Subpart LLL	Standards of Performance for Onshore Natural Gas Processing: SO ₂ Emissions. There are no sweetening units at the Ellamore station.
40 C.F.R. 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines. There are no turbines at the Ellamore Compressor Station.
40 CFR 63 Subpart HH	National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. The Ellamore Compressor Station is not subject to Subpart HH since Ellamore Compressor Station is not a natural gas production facility.
40 CFR 63 Subpart HHH	National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. The Ellamore Compressor Station transports less than 8 million standard cubic meters of natural gas per day of transmission gas. Ellamore station has obtained federally enforceable limits on the operation of the flare (FL1) servicing the dehydrator, which reduces the facility's potential-to-emit to levels below the applicability threshold of this Subpart.
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). The Ellamore Compressor Station is not subject to RICE since the station is not major source of HAPs.
40 C.F.R. Part 64	The facility does not have any pollutant specific emissions units (PSEU) at this facility that satisfy all of the applicability criteria requirements of 40 CFR §64.2(a), i.e., that: 1) have pre-control regulated pollutant potential emissions (PTE) equal to or greater than the "major" threshold limits to be classified as a major source; 2) are subject to an emission limitation or standard and; 3) have a control device to achieve compliance with such emission limitation or standard. Therefore, the facility is not subject to the Compliance Assurance Monitoring (CAM) rule.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: February 14, 2007
Ending Date: March 16, 2007

All written comments should be addressed to the following individual and office:

Wayne Green
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Wayne Green
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1258 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

Not applicable.